I. AMENDMENTS

A. In the Title

Please amend the Title to read as follows:

PROMYOSTATIN PEPTIDES

B. In the Claims

Please cancel claims 4 to 33 without prejudice.

Please amend claims 1 and 3 to read as follows:

1. (Amended) A substantially purified peptide of a promyostatin polypeptide, said peptide comprising a promyostatin signal peptide domain corresponding to amino acid residues about 1 to 20 of a full length promyostatin polypeptide, said peptide having signal peptide activity.

3. (Amended) The peptide of claim 1, wherein the promyostatin polypeptide comprises:

a human promyostatin polypeptide having an amino acid sequence as set forth in SEQ ID NO: 2;

a murine promyostatin polypeptide having an amino acid sequence as set forth in SEQ ID NO: 4;

a rat promyostatin polypeptide having an amino acid sequence as set forth in SEQ ID NO: 6;

a chicken promyostatin polypeptide having an amino acid sequence as set forth in SEQ ID NO: 8;

a baboon promyostatin polypeptide having an amino acid sequence as set forth in SEQ ID NO: 10;

a bovine promyostatin polypeptide having an amino acid sequence as set forth in SEQ ID NO: 12;

a porcine promyostatin polypeptide having an amino acid sequence as set forth in SEQ ID NO: 14;

an ovine promyostatin polypeptide having an amino acid sequence as set forth in SEQ ID NO: 16;

a turkey promyostatin polypeptide having an amino acid sequence as set forth in SEQ ID NO: 18; or

a zebrafish promyostatin polypeptide having an amino acid sequence as set forth in SEQ ID NO: 20.

Please add the following new claims:

--34. A substantially purified peptide of a promyostatin polypeptide, said peptide comprising a promyostatin prodomain corresponding to amino acid residues about 20 to 262 of a full length promyostatin polypeptide, said peptide having myostatin binding activity.

35. The peptide of claim 34, wherein said promyostatin polypeptide is a vertebrate promyostatin polypeptide.

36. The peptide of claim 34, wherein the promyostatin polypeptide comprises:

a human promyostatin polypeptide having an amino acid sequence as set forth in SEQ ID NO: 2;

a murine promyostatin polypeptide having an amino acid sequence as set forth in SEQ ID NO: 4;

a rat promyostatin polypeptide having an amino acid sequence as set forth in SEQ ID NO: 6;

a chicken promyostatin polypeptide having an amino acid sequence as set forth in SEQ ID NO: 8;

a baboon promyostatin polypeptide having an amino acid sequence as set forth in SEQ ID NO: 10;

a bovine promyostatin polypeptide having an amino acid sequence as set forth in SEQ ID NO: 12;

a porcine promyostatin polypeptide having an amino acid sequence as set forth in SEQ ID NO: 14;

an ovine promyostatin polypeptide having an amino acid sequence as set forth in SEQ ID NO: 16;

a turkey promyostatin polypeptide having an amino acid sequence as set forth in SEQ ID NO: 18; or

a zebrafish promyostatin polypeptide having an amino acid sequence as set forth in SEQ ID NO: 20.

37. The peptide of claim 34, wherein the promyostatin prodomain comprises:
amino acid residues about 20 to 263 as set forth in SEQ ID NO: 4;
amino acid residues about 20 to 262 as set forth in SEQ ID NO: 2;
amino acid residues about 20 to 262 as set forth in SEQ ID NO: 10;
amino acid residues about 20 to 262 as set forth in SEQ ID NO: 12;
amino acid residues about 20 to 262 as set forth in SEQ ID NO: 8;
amino acid residues about 20 to 263 as set forth in SEQ ID NO: 6;
amino acid residues about 20 to 262 as set forth in SEQ ID NO: 18;
amino acid residues about 20 to 262 as set forth in SEQ ID NO: 14;
amino acid residues about 20 to 262 as set forth in SEQ ID NO: 16; or
amino acid residues about 20 to 262 as set forth in SEQ ID NO: 20.

38. The peptide of claim 34, which further comprises an amino acid sequence corresponding to amino acid residues about 1 to 20 of a full length promyostatin polypeptide.

39. The peptide of claim 34, which further comprises amino acid residues about 1 to 20 of SEQ ID NO:2, SEQ ID NO:4, SEQ ID NO:6, SEQ ID NO:8, SEQ ID NO:10, SEQ ID NO:12, SEQ ID NO:14, SEQ ID NO:16, SEQ ID NO:18, or SEQ ID NO:20.

40. A substantially purified peptide of a promyostatin polypeptide, said peptide comprising a promyostatin myostatin domain corresponding to amino acid residues about 268 to 374 of a full length promyostatin polypeptide, said peptide having muscle growth inhibitory activity.

41. The peptide of claim 40, wherein said promyostatin polypeptide is a vertebrate promyostatin polypeptide.

42. The peptide of claim 40, wherein the promyostatin polypeptide comprises:

a human promyostatin polypeptide having an amino acid sequence as set forth in SEQ ID NO: 2;

a murine promyostatin polypeptide having an amino acid sequence as set forth in SEQ ID NO: 4;

a rat promyostatin polypeptide having an amino acid sequence as set forth in SEQ ID NO: 6;

a chicken promyostatin polypeptide having an amino acid sequence as set forth in SEQ ID NO: 8;

a baboon promyostatin polypeptide having an amino acid sequence as set forth in SEQ ID NO: 10;

a bovine promyostatin polypeptide having an amino acid sequence as set forth in SEQ ID NO: 12;

a porcine promyostatin polypeptide having an amino acid sequence as set forth in SEQ ID NO: 14;

an ovine promyostatin polypeptide having an amino acid sequence as set forth in SEQ ID NO: 16;

a turkey promyostatin polypeptide having an amino acid sequence as set forth in SEQ ID NO: 18; or

a zebrafish promyostatin polypeptide having an amino acid sequence as set forth in SEQ ID NO: 20.

43. The peptids of claim 40, wherein the myostatin domain comprises:
amino acid residues about 268 to 375 as set forth in SEQ ID NO: 4;
amino acid residues about 267 to 374 as set forth in SEQ ID NO: 2;
amino acid residues about 267 to 374 as set forth in SEQ ID NO: 10;
amino acid residues about 267 to 374 as set forth in SEQ ID NO: 12;
amino acid residues about 267 to 374 as set forth in SEQ ID NO: 8;
amino acid residues about 268 to 375 as set forth in SEQ ID NO: 6;
amino acid residues about 267 to 374 as set forth in SEQ ID NO: 18;
amino acid residues about 267 to 374 as set forth in SEQ ID NO: 14;
amino acid residues about 267 to 374 as set forth in SEQ ID NO: 16; or
amino acid residues about 267 to 374 as set forth in SEQ ID NO: 20.

44. A substantially purified peptide of a promyostatin polypeptide, said peptide comprising a promyostatin prodomain comprising:

amino acid residues about 1 to 44 of SEQ ID NO:27; or

amino acid residues about 1 to 23 of SEQ ID NO:29.

45. A substantially purified peptide of a promyostatin polypeptide, said peptide comprising a promyostatin myostatin domain comprising:

amino acid residues about 49 to 157 of SEQ ID NO: 27; or

amino acid residues about 28 to 136 of SEQ ID NO: 29.--